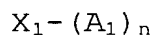


What is claimed is:

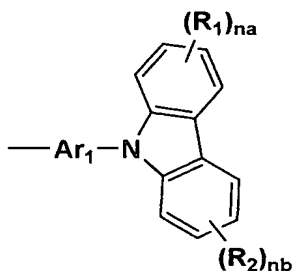
1. An organic electroluminescent element comprising an anode, a cathode and a component layer including a light emission layer, the component layer being provided between the anode and the cathode, wherein the component layer contains a compound represented by formula 1,

Formula 1



wherein  $A_1$  represents a group represented by formula 2, provided that plural  $A_1$  may be the same or different,

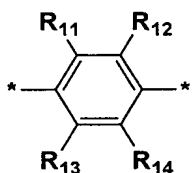
Formula 2



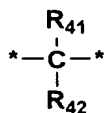
wherein  $Ar_1$  represents a divalent aromatic hydrocarbon or aromatic heterocyclic group;  $R_1$  and  $R_2$  independently represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, a

cyano group, a hydroxyl group, a substituted or unsubstituted alkenyl group, or a halogen atom;  $n_a$  and  $n_b$  independently represent an integer of from 1 to 4;  $n$  represents an integer of from 2 to 4; and  $X_1$  represents a group represented by formula (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), or (k),

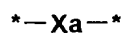
formula (a)



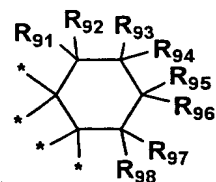
formula (d)



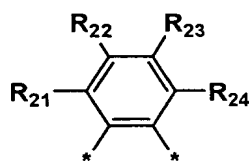
formula (g)



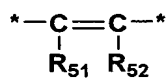
formula (j)



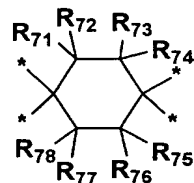
formula (b)



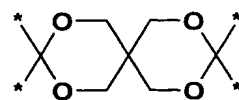
formula (e)



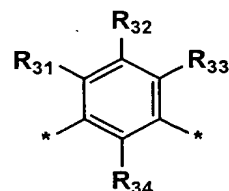
formula (h)



formula (k)



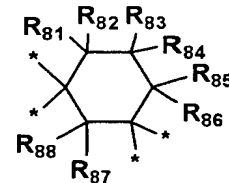
formula (c)



formula (f)



formula (i)



wherein  $R_{11}$  through  $R_{14}$ ,  $R_{21}$  through  $R_{24}$ , and  $R_{31}$  through  $R_{34}$  independently represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, a cyano group, a hydroxyl group, a substituted or unsubstituted alkenyl group, or a halogen atom, provided that  $R_{11}$  through  $R_{14}$  are not simultaneously hydrogen atoms,  $R_{21}$  through  $R_{24}$  are not simultaneously hydrogen atoms,  $R_{31}$  through  $R_{34}$  are not simultaneously hydrogen atoms, and  $R_{11}$  and  $R_{12}$ , and  $R_{13}$  and  $R_{14}$  may combine with each other, respectively, to form a ring, but does not simultaneously combine with each other;  $R_{41}$  and  $R_{42}$  independently represent an alkyl group, provided that the total carbon atom number of the alkyl group is from 3 to 9;  $R_{51}$  and  $R_{52}$  independently represent a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, a cyano group, a hydroxyl group, a substituted or unsubstituted alkenyl group, or a halogen

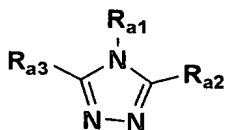
atom; R<sub>61</sub> represents an alkyl group; Xa represents a divalent 6- or 7-membered monocyclic heterocyclic ring which is unsubstituted or alkyl-substituted; R<sub>71</sub> through R<sub>78</sub> independently represent a hydrogen atom, an alkyl group, or an alkoxy group; R<sub>81</sub> through R<sub>88</sub> independently represent a hydrogen atom, an alkyl group, or an alkoxy group; R<sub>91</sub> through R<sub>98</sub> independently represent a hydrogen atom, an alkyl group, or an alkoxy group; and "\*" represents a linkage site.

2. The organic electroluminescent element of claim 1, wherein a hole blocking layer is provided between the light emission layer and the cathode.

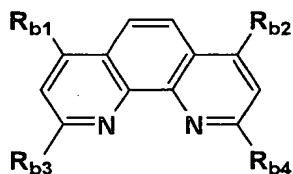
3. The organic electroluminescent element of claim 2, wherein the hole blocking layer is comprised of at least one selected from the group consisting of a styryl compound, a triazole derivative, a phenanthroline derivative, an oxadiazole derivative and a boron derivative.

4. The organic electroluminescent element of claim 2, wherein the hole blocking layer is comprised of at least one selected from the group consisting of compounds represented by formula 5, 6, 7 or 8,

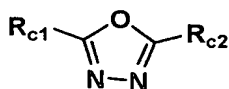
Formula 5



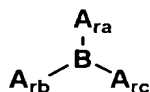
Formula 6



Formula 7



Formula 8



wherein  $R_{a1}$  through  $R_{a3}$ ,  $R_{b1}$  through  $R_{b4}$ , and  $R_{c1}$  and  $R_{c2}$  independently represent an alkyl group, an aryl group or a heterocyclic group; and  $A_{ra}$  through  $A_{rc}$  independently represent an aryl group or a heterocyclic group.

5. The organic electroluminescent element of claim 1, wherein the light emission layer contains the compound represented by formula 1 above.

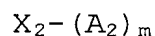
6. The organic electroluminescent element of claim 1, wherein the organic electroluminescent element contains a phosphorescent compound.

7. The organic electroluminescent element of claim 6, wherein the phosphorescent compound is an osmium complex, an iridium complex or a platinum complex.

8. An organic electroluminescent element comprising an anode, a cathode and a component layer including a light

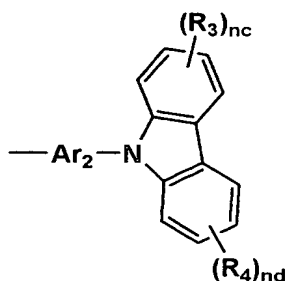
emission layer, the component layer being provided between the anode and the cathode, wherein the component layer contains a compound represented by formula 3,

Formula 3



wherein  $A_2$  represents a group represented by formula 4, provided that plural  $A_2$  may be the same or different,

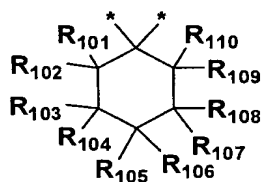
Formula 4



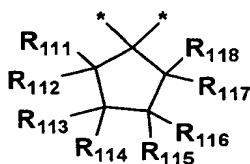
wherein  $Ar_2$  represents a divalent aromatic hydrocarbon or aromatic heterocyclic group;  $R_3$  and  $R_4$  independently represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, a cyano group, a hydroxyl group, a substituted or unsubstituted alkenyl group, or a halogen atom;  $nc$  and  $nd$  independently represent an integer of from 1 to 4;  $m$  represents an integer

of from 2 to 4; and  $X_2$  represents a group represented by formula (l), (m), (n), or (o),

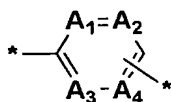
Formula (l)



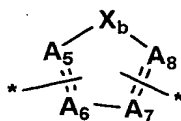
Formula (m)



Formula (n)



Formula (o)



wherein  $R_{101}$  through  $R_{110}$  independently represent a hydrogen atom, an alkyl group, or an alkoxy group, provided that  $R_{101}$  through  $R_{110}$  does not simultaneously hydrogen atoms; and any two of  $R_{101}$  through  $R_{110}$  do not combine with each other to form a ring;  $R_{111}$  through  $R_{118}$  independently represent a hydrogen atom, an alkyl group, or an alkoxy group;  $A_1$ ,  $A_2$ ,  $A_3$ , and  $A_4$

independently represent  $-C(R_{k1})=$  or  $-N=$ , in which  $R_{k1}$  represents a hydrogen atom or an alkyl group, provided that at least one of  $A_1$ ,  $A_2$ ,  $A_3$ , and  $A_4$  is  $-N=$ ;  $A_5$ ,  $A_6$ ,  $A_7$ , and  $A_8$  independently represent  $-C(R_{k2})=$  or  $-N=$ ;  $X_b$  represents  $-N(R_{k3})=$  or  $-Si(R_{k4})(R_{k5})-$ , which  $R_{k2}$ ,  $R_{k3}$ ,  $R_{k4}$ , and  $R_{k5}$  independently represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, a cyano group, a hydroxyl group, a substituted or unsubstituted alkenyl group, or a halogen atom; and "\*" represents a linkage site.

9. The organic electroluminescent element of claim 8, wherein a hole blocking layer is provided between the light emission layer and the cathode.

10. The organic electroluminescent element of claim 9, wherein the hole blocking layer is comprised of at least one selected from the group consisting of a styryl compound, a triazole derivative, a phenanthroline derivative, an oxadiazole derivative and a boron derivative.

11. The organic electroluminescent element of claim 9, wherein the hole blocking layer is comprised of at least one



selected from the group consisting of compounds represented by formula 5, 6, 7 or 8 above.

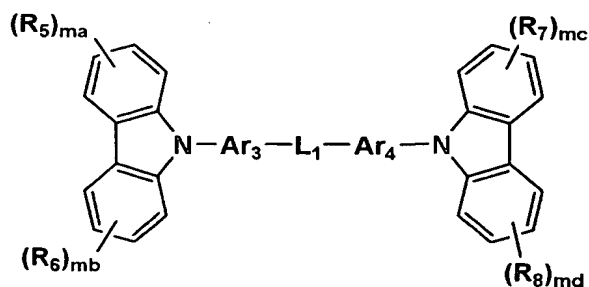
12. The organic electroluminescent element of claim 8, wherein the light emission layer contains the compound represented by formula 3 above.

13. The organic electroluminescent element of claim 8, wherein the organic electroluminescent element contains a phosphorescent compound.

14. The organic electroluminescent element of claim 13, wherein the phosphorescent compound is an osmium complex, an iridium complex or a platinum complex.

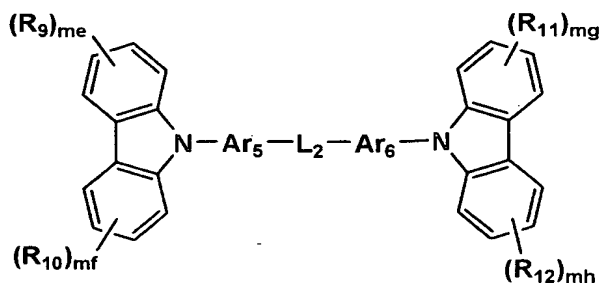
15. An organic electroluminescent element comprising an anode, a cathode and a component layer including a light emission layer, the component layer being provided between the anode and the cathode, wherein the component layer contains a compound represented by formula H1, H2, H3 or H4,

Formula H1



wherein  $L_1$  represents a straight-chained alkylene group having an aromatic ring;  $Ar_3$  and  $Ar_4$  independently represent a divalent aromatic hydrocarbon group or a divalent aromatic heterocyclic group;  $R_5$ ,  $R_6$ ,  $R_7$ , and  $R_8$  independently represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, a cyano group, a hydroxyl group, a substituted or unsubstituted alkenyl group, or a halogen atom; and  $ma$ ,  $mb$ ,  $mc$ , and  $md$  independently represent an integer of from 1 to 4,

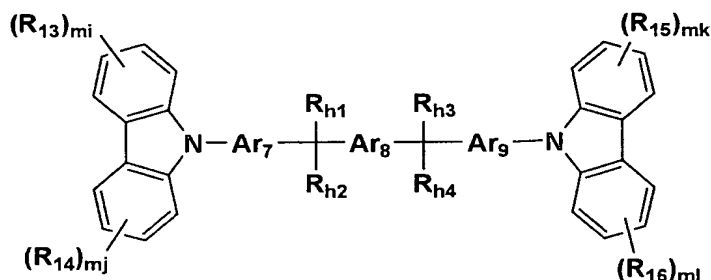
Formula H2



wherein  $L_2$  represents an alkylene group having at least one fluorine atom;  $Ar_5$  and  $Ar_6$  independently represent a divalent aromatic hydrocarbon group or a divalent aromatic heterocyclic group;  $R_9$ ,  $R_{10}$ ,  $R_{11}$ , and  $R_{12}$  independently represent a hydrogen atom, a substituted or unsubstituted

alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, a cyano group, a hydroxyl group, a substituted or unsubstituted alkenyl group, or a halogen atom; and me, mf, mg, and mh independently represent an integer of from 1 to 4.

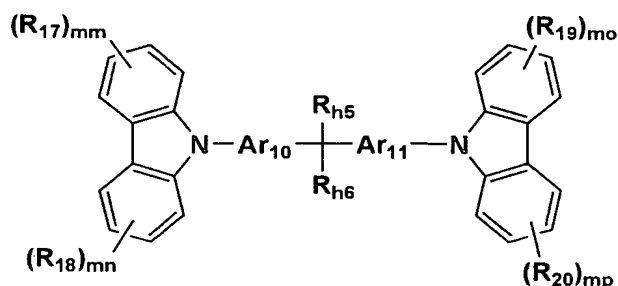
Formula H3



wherein  $Ar_7$ ,  $Ar_8$  and  $Ar_9$  independently represent a divalent aromatic hydrocarbon group or a divalent aromatic heterocyclic group;  $R_{h1}$ ,  $R_{h2}$ ,  $R_{h3}$ , and  $R_{h4}$  independently represent an alkyl group, a cycloalkyl group, an aralkyl group, an alkoxy group or a halogen atom;  $R_{13}$ ,  $R_{14}$ ,  $R_{15}$ , and  $R_{16}$  independently represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted alkoxy group, a substituted or

unsubstituted aryloxy group, a cyano group, a hydroxyl group, a substituted or unsubstituted alkenyl group, or a halogen atom; and  $m_i$ ,  $m_j$ ,  $m_k$ , and  $m_l$  independently represent an integer of from 1 to 4,

Formula H4



wherein  $Ar_{10}$  and  $Ar_{11}$  independently represent a divalent aromatic hydrocarbon group or a divalent aromatic heterocyclic group;  $R_{h5}$  and  $R_{h6}$  independently represent a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, a cyano group, a hydroxyl group, a substituted or unsubstituted alkenyl group, a halogen atom, or  $-[C(R_{01})(R_{02})]_pCF_3$ , in which  $R_{01}$  and  $R_{02}$  independently represent a hydrogen atom or a fluorine atom, and  $p$  represents an integer of not less than 0, provided that at least one of  $R_{h5}$  and  $R_{h6}$  is  $-[C(R_{01})(R_{02})]_pCF_3$ ;  $R_{17}$ ,  $R_{18}$ ,  $R_{19}$ ,

and R<sub>20</sub> independently represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, a cyano group, a hydroxyl group, a substituted or unsubstituted alkenyl group, or a halogen atom; and mm, mn, mo, and mp independently represent an integer of from 1 to 4.

16. The organic electroluminescent element of claim 15, wherein a hole blocking layer is provided between the light emission layer and the cathode.

17. The organic electroluminescent element of claim 16, wherein the hole blocking layer is comprised of at least one selected from the group consisting of a styryl compound, a triazole derivative, a phenanthroline derivative, an oxadiazole derivative and a boron derivative.

18. The organic electroluminescent element of claim 16, wherein the hole blocking layer is comprised of at least one selected from the group consisting of compounds represented by formula 5, 6, 7 or 8 above.

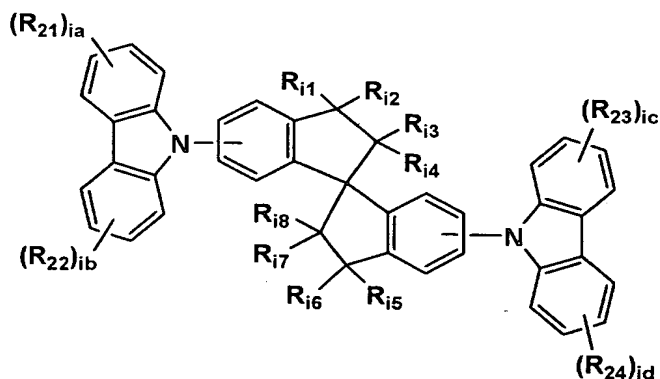
19. The organic electroluminescent element of claim 15, wherein the light emission layer contains the compound represented by formula H1, H2, H3, or H4 above.

20. The organic electroluminescent element of claim 15, wherein the organic electroluminescent element contains a phosphorescent compound.

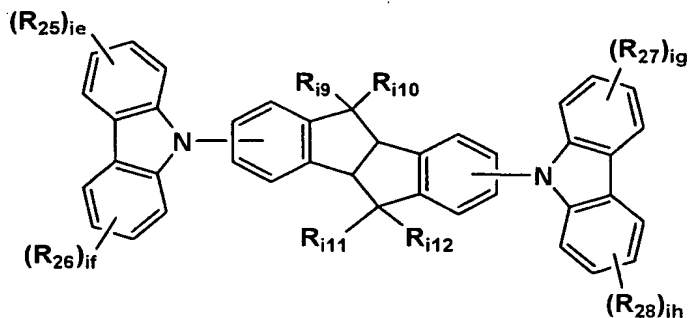
21. The organic electroluminescent element of claim 20, wherein the phosphorescent compound is an osmium complex, an iridium complex or a platinum complex.

22. An organic electroluminescent comprising an anode, a cathode and a component layer including a light emission layer, the component layer being provided between the anode and the cathode, wherein the component layer contains a compound represented by formula I1, I2 or I3,

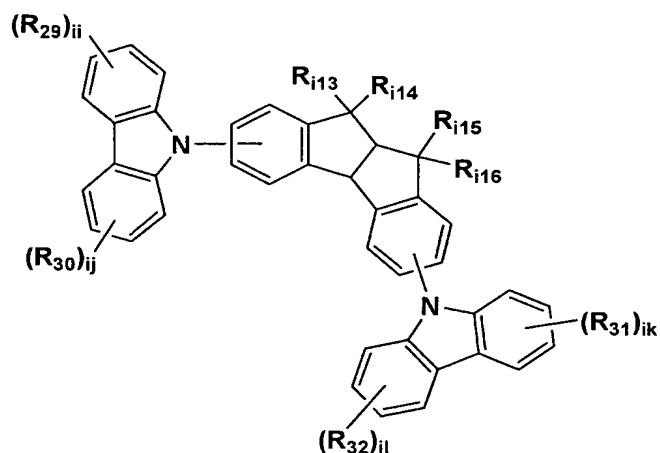
Formula I1



Formula I2



Formula I3



wherein  $R_{i11}$ ,  $R_{i12}$ ,  $R_{i13}$ ,  $R_{i14}$ ,  $R_{i15}$ ,  $R_{i16}$ ,  $R_{i17}$ ,  $R_{i18}$ ,  $R_{i19}$ ,  $R_{i10}$ ,  $R_{i11}$ ,  $R_{i12}$ ,  $R_{i13}$ ,  $R_{i14}$ ,  $R_{i15}$ , and  $R_{i16}$  independently represent a hydrogen atom, an alkyl group, a cycloalkyl group, an aralkyl group, an alkoxy group or a halogen atom;  $R_{21}$ ,  $R_{22}$ ,  $R_{23}$ ,  $R_{24}$ ,  $R_{25}$ ,  $R_{26}$ ,  $R_{27}$ ,  $R_{28}$ ,  $R_{29}$ ,  $R_{30}$ ,  $R_{31}$ , and  $R_{32}$  independently represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aralkyl group, a substituted or

unsubstituted aryl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, a cyano group, a hydroxyl group, a substituted or unsubstituted alkenyl group, or a halogen atom; and ia, ib, ic, id, ie, if, ig, ih, ii, ij, ik, and io independently represent an integer of from 1 to 4.

23. The organic electroluminescent element of claim 22, wherein a hole blocking layer is provided between the light emission layer and the cathode.

24. The organic electroluminescent element of claim 23, wherein the hole blocking layer is comprised of at least one selected from the group consisting of a styryl compound, a triazole derivative, a phenanthroline derivative, an oxadiazole derivative and a boron derivative.

25. The organic electroluminescent element of claim 23, wherein the hole blocking layer is comprised of at least one selected from the group consisting of compounds represented by formula 5, 6, 7 or 8 above.

26. The organic electroluminescent element of claim 22, wherein the light emission layer contains the compound represented by formula I1, I2 or I3 above.

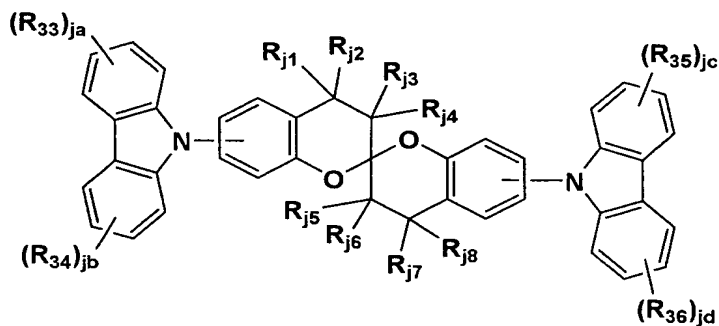


27. The organic electroluminescent element of claim 22, wherein the organic electroluminescent element contains a phosphorescent compound.

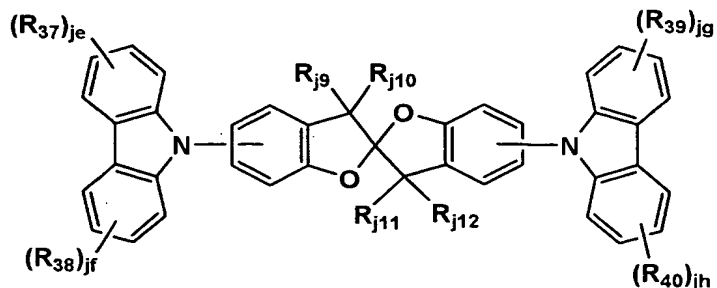
28. The organic electroluminescent element of claim 27, wherein the phosphorescent compound is an osmium complex, an iridium complex or a platinum complex.

29. An organic electroluminescent comprising an anode, a cathode and a component layer including a light emission layer, the component layer being provided between the anode and the cathode, wherein the component layer contains a compound represented by formula J1 or J2,

Formula J1



Formula J2



wherein  $R_{j1}$ ,  $R_{j2}$ ,  $R_{j3}$ ,  $R_{j4}$ ,  $R_{j5}$ ,  $R_{j6}$ ,  $R_{j7}$ ,  $R_{j8}$ ,  $R_{j9}$ ,  $R_{j10}$ ,  $R_{j11}$ , and  $R_{j12}$  independently represent a hydrogen atom, an alkyl group, a cycloalkyl group, an aralkyl group, an alkoxy group or a halogen atom;  $R_{33}$ ,  $R_{34}$ ,  $R_{35}$ ,  $R_{36}$ ,  $R_{37}$ ,  $R_{38}$ ,  $R_{39}$ , and  $R_{40}$  independently represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, a cyano group, a hydroxyl group, a substituted or unsubstituted alkenyl group, or a halogen atom; and  $ja$ ,  $jb$ ,  $jc$ ,  $jd$ ,  $ie$ ,  $jf$ ,  $yg$ , and  $jh$  independently represent an integer of from 1 to 4.

30. The organic electroluminescent element of claim 29, wherein a hole blocking layer is provided between the light emission layer and the cathode.

31. The organic electroluminescent element of claim 30, wherein the hole blocking layer is comprised of at least one selected from the group consisting of a styryl compound, a triazole derivative, a phenanthroline derivative, an oxadiazole derivative and a boron derivative.

32. The organic electroluminescent element of claim 30, wherein the hole blocking layer is comprised of at least one

selected from the group consisting of compounds represented by formula 5, 6, 7 or 8 above.

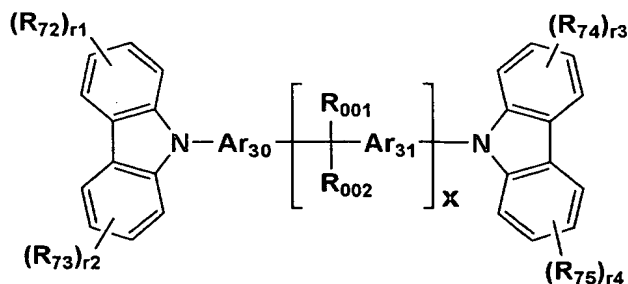
33. The organic electroluminescent element of claim 29, wherein the light emission layer contains the compound represented by formula J1 or J2 above.

34. The organic electroluminescent element of claim 29, wherein the organic electroluminescent element contains a phosphorescent compound.

35. The organic electroluminescent element of claim 34, wherein the phosphorescent compound is an osmium complex, an iridium complex or a platinum complex.

36. An organic electroluminescent element comprising an anode, a cathode and a component layer including a light emission layer, the component layer being provided between the anode and the cathode, wherein the component layer contains a compound represented by formula K,

Formula K



wherein  $R_{001}$  and  $R_{002}$  independently represent a substituent, provided that  $R_{001}$  and  $R_{002}$  do not combine with each other to form a ring, wherein the sum of a van der Waals volume of  $R_{001}$  and that of  $R_{002}$  is in the range of from 60 to 280 Å<sup>3</sup>;  $Ar_{30}$  and  $Ar_{31}$  independently represent a divalent aromatic hydrocarbon group or aromatic heterocyclic group;  $R_{72}$ ,  $R_{73}$ ,  $R_{74}$ , and  $R_{75}$  independently represent a hydrogen atom or a substituent;  $r_1$ ,  $r_2$ ,  $r_3$ , and  $r_4$  independently represent an integer of from 1 to 4; and  $x$  represents an integer of not less than 1.

37. The organic electroluminescent element of claim 36, wherein a hole blocking layer is provided between the light emission layer and the cathode.

38. The organic electroluminescent element of claim 37, wherein the hole blocking layer is comprised of at least one selected from the group consisting of a styryl compound, a triazole derivative, a phenanthroline derivative, an oxadiazole derivative and a boron derivative.

39. The organic electroluminescent element of claim 37, wherein the hole blocking layer is comprised of at least one selected from the group consisting of compounds represented by formula 5, 6, 7 or 8 above.

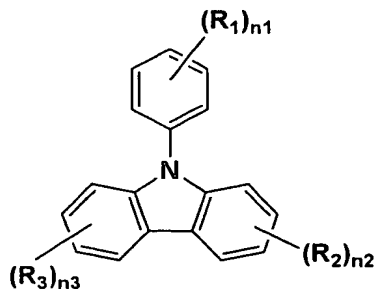
40. The organic electroluminescent element of claim 36, wherein the light emission layer contains the compound represented by formula K above.

41. The organic electroluminescent element of claim 36, wherein the organic electroluminescent element contains a phosphorescent compound.

42. The organic electroluminescent element of claim 41, wherein the phosphorescent compound is an osmium complex, an iridium complex or a platinum complex.

43. An organic electroluminescent element comprising an anode, a cathode and a component layer including a light emission layer, the component layer being provided between the anode and the cathode, wherein the component layer contains an electron transporting material having a phosphorescence 0-0 band of not more than 450 nm, and the light emission layer contains a phosphorescent compound and a compound represented by formula A,

Formula A



wherein  $R_1$ ,  $R_2$  and  $R_3$  independently represent a substituted or unsubstituted alkyl group or a substituted or unsubstituted cycloalkyl group;  $n_1$  represents an integer of from 0 to 5; and  $n_2$  and  $n_3$  independently represent an integer of from 0 to 4, provided that  $R_1$  and  $R_2$ ,  $R_1$  and  $R_3$ , or  $R_2$  and  $R_3$ , each may combine with each other to form a ring.

44. The organic electroluminescent element of claim 43, wherein the organic electroluminescent element emits a white light.

45. An organic electroluminescent element comprising an anode, a cathode and a component layer including a light emission layer, the component layer being provided between the anode and the cathode, wherein the component layer contains a hole transporting material having a phosphorescence 0-0 band of not more than 480 nm, and the light emission layer contains a phosphorescent compound and a compound represented by formula A above.

46. The organic electroluminescent element of claim 45, wherein the organic electroluminescent element emits a white light.

47. An organic electroluminescent element comprising an anode, a cathode and a component layer including a light emission layer, the component layer being provided between

the anode and the cathode, wherein the light emission layer contains a phosphorescent compound having a phosphorescence 0-0 band of not more than 480 nm and a compound represented by formula A above.

48. The organic electroluminescent element of claim 47, wherein the organic electroluminescent element emits a white light.

49. A display comprising the organic electroluminescent element of any one of claims 1 through 48.

50. An illuminator comprising the organic electroluminescent element of any one of claims 1 through 48.

51. A display comprising the illuminator of claim 50, and a liquid crystal cell as a displaying element.